

DOCKET NO. MUR-037-USA-P

IN THE CLAIMS:

Kindly cancel claims 1-4, and amend claims 5-7 as follows:

1-4. (Cancelled)

5. (Currently Amended) [[The]] An iontophoresis system for non-invasively extracting a physiological substance out of a living body comprising:

[[two]] a first electrode structure having a physiological extraction pad thereon, said first electrode structure structures affixed to a first fixing member,

a second electrode structure affixed to a second fixing member, said second fixing member hingedly engaged with said first fixing member at a hinge connection so as to form a cross shape,

fixing members fixing the electrode structures,

a spring member in attachment to provided between the first fixing members member and the second fixing member, on one side of the hinge connection, so as arranged to rotatably cross bias the first electrode structure and the second electrode structure together each other, and

a power supply device connected to the electrode structures,

wherein at least one of the electrode structures has a physiological substance extraction pad applied to a mucous membrane.

6. (Currently Amended) The iontophoresis system according to claim 5, wherein one of the first electrode structures is provided for the mucous membrane of the mouth, and the other second electrode structure is provided for the skin.

7. (Currently Amended) A method of analyzing a physiological substance using the iontophoresis system of claim 5 to non-invasively remove a physiological substance from a living body for analysis, comprising:

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applying [[a]] the physiological substance extraction pad to a mucous membrane,
applying electric energy of 10 volts or less to the living body via the pad for 30 seconds to 20
minutes by [[the]] iontophoresis, and
quantifying or qualitatively measuring a physiological substance extracted in the pad.

8. (Original) The method of analyzing a physiological substance according to claim 7,
wherein the physiological substance extraction pad is used to extract glucose.

9. (Previously Presented) The method of analyzing a physiological substance according to
claim 7, wherein the physiological substance extraction pad is adapted to be applied to a mucous
membrane of a mouth.

Kindly add new claims 10-14 as follows:

10. (New) The iontophoresis system according to claim 5, wherein the electrode structure
having the first electrode further comprises a device quantifying the physiological substance or a
device qualitatively measuring the physiological substance.

11. (New) The iontophoresis system according to claim 5, wherein the physiological
substance is a drug administered for treatment.

12. (New) The iontophoresis system of claim 5, further comprising a glucose sensor in
connection with the first and/or second electrode.

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13. (New) The iontophoresis system of claim 5, further comprising a general antigen and antibody sensor in connection with the first and/or second electrode.

14. (New) The iontophoresis system of claim 12, wherein the glucose sensor in connection with the first and/or second electrode comprises:

a first sensor electrode,

a second sensor electrode, and

a detector conductively connecting the first sensor electrode and the second sensor electrode.

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